

Stream Fisheries Assessments above Rathbun Lake

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Tributary streams to Rathbun Lake are being sampled to determine water quality, fish communities and habitat suitability. This assessment is an ongoing investigation to evaluate the affect of land use and management upon water quality and the sport fishery at Rathbun Lake.

Fish communities in the Rathbun watershed stream network have been sampled since 1994. During that period over 10,000 fish involving 30 species were taken with seine and backpack electrofishing. Most common were red shiner, sand shiner, creek chub and bigmouth shiner.

Close examination of the distributions of other stream fish showed some very interesting, yet ambiguous results. For example, johnny darters and suckermouth minnows were only found in the South Fork drainage; whereas orangespotted sunfish and white suckers were only found in the North Fork drainage. This begs the question: Why? Was it a fluke of sampling? Probably not, because hundreds of hours of seining and shocking were expended on 27 sample sites throughout the drainage. Was it because johnny darters, suckermouth minnows, orangespotted sunfish and white suckers are less abundant than other fish species and simply missed in some drainages and not others? Again, probably not, because more than 600 of these fish have been sampled.

Ten mussel (freshwater clam) species were identified from the streams during 2003. Two species of particular note are the Pondhorn, which was not known to occur in Iowa, and the Pondmussel, which was thought to no longer exist in the state. In all, 435 live mussels were identified. The dominant species was the Mapleleaf, followed by the Giant Floater. These two species comprised more than 50% of live mussels identified.

So, what value can be derived from these findings? Of primary consideration is each species to the environment. It is certainly possible to use these species as indicators of their surroundings. They may well be viewed as the 'canary in the coal mine' of the Rathbun watershed. It is too early to say whether these species can be used to assess the health and quality of streams in the Rathbun watershed. However, with more examination, it is possible that the presence or absence of these species will speak volumes on stream health and ultimately the use, or misuse, of land practices in the watershed.